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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,534	04/20/2004	Akira Ishikawa	740756-2724	5529
22204	7590	06/29/2005	EXAMINER	
NIXON PEABODY, LLP 401 9TH STREET, NW SUITE 900 WASHINGTON, DC 20004-2128			KESHAVAN, BELUR V	
			ART UNIT	PAPER NUMBER
			2823	

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/827,534

Applicant(s)

ISHIKAWA, AKIRA

Examiner

Belur V. Keshavan

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 and 49-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,4-6,12-16,22-36,50 and 52-54 is/are allowed.
- 6) ☐ Claim(s) 1,3,7-11,17-21,49 and 51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/8/05, 9/1, 4/20.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

In response to the election requirement of May 19, 2005, Applicant elected without traverse, the Group I invention directed to a method of manufacturing, claims 1-36 and 49-54 being drawn thereto.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, 7-11, 17-21, 49 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants' admitted prior art, hereinafter AAPA, in view of B. EL-Kareh ("Introduction to VLSI Silicon Devices", pp 66-67), hereinafter El-Kareh.

Regarding claims 1, 3, 9, 10, 11, 19, 20, 21, 49 and 51, AAPA discloses in figures 7A and 7B and on pages 2-3 in the specification, a method for manufacturing a semiconductor device having a semiconductor element comprising: forming a gate insulating film (704) over a semiconductor region in a thin film crystalline semiconductor substrate (703); forming a gate electrode (705) over the semiconductor region with the gate insulating film interposed there between; forming an insulating film (706) covering the gate electrode; exposing a part of the semiconductor region (703a and 703b); forming a conductive film over the semiconductor region after exposing a part of the semiconductor region; and etching a part of the conductive film (709a, 709b). AAPA is silent about forming a resist mask over the conductive film to etch and to shape the conductive film. However, photolithography in contact metallurgy is notoriously well known in the art where in a resist mask is formed over a conductive film for selective etching and forming the conductive film. In support of this assertion, the examiner cites El-Kareh wherein a resist mask is formed over a conductive film for selective etching

and forming the conductive film. It would have been obvious to one of ordinary skill in the art to use the teachings of El-Kareh to add or to modify the teachings of AAPA to form resist mask over the conductive film by removing a portion of the resist, etching a part of the conductive film by using the resist mask and etching a part of the etched conductive film.

Regarding claims 7, 8, 17 and 18, AAPA is silent about forming resist mask by developing after exposing an entire face of the resist to light, etching an entire face of the resist and exposing a part of the conductive film. However, photolithography in contact metallurgy is notoriously well known in the art where in a resist mask is formed over a conductive film for selective etching and forming the conductive film. In support of this assertion, the examiner cites El-Kareh wherein a resist mask is formed over a conductive film for selective etching and forming the conductive film. It would have been obvious to one of ordinary skill in the art to further use the teachings of El-Kareh to add or to modify the teachings of AAPA to form resist mask by developing after exposing an entire face of the resist to light, etching an entire face of the resist and exposing a part of the conductive film.

Allowable Subject Matter

Claims 2, 4- 6, 12-16, 22-36, 50, 52-54 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or render a method of manufacturing a semiconductor element comprising inter alia the following limitations: forming a resist over the conductive film; removing a portion of the resist to form resist mask; etching a part of the conductive film by using the resist mask; and etching a part of the etched conductive film and a part of the semiconductor region.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Belur V. Keshavan whose telephone number is 571-272-1894. The examiner can normally be reached on 8-4:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



MATTHEW SMITH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bvk. 
June 25, 2005.

Belur V. Keshavan
Examiner. Art Unit 2825.